University of Minnesota Extension

Home Food Preservation Newsletter

July 2009

In This Issue

Upcoming Workshops:

Check the University of Minnesota Extension website for a list of upcoming workshops

For more food preservation information:

Answer Line:
1-800-854-1678

U of MN Food Safety—Food Preservation

National Center for Home Food Preservation

Order So Easy to Preserve (5th Edition)

Welcome!

When preserving foods, this is NOT the time to be creative! Keep food safe by following recommended guidelines. Food preservation recommendations have changed a lot in the last 15 years. If you are using recipes or resources from 1994 or before, set them aside and find current information.

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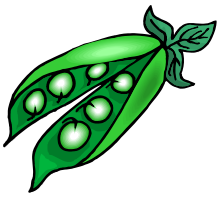
Freezing Vegetables



Freezing is a quick and convenient way to preserve vegetables. It is the preservation method that potentially retains the most nutrients in produce.

Fresh produce contains enzymes which cause the loss of color, flavor, and nutrients. These enzymes are inactivated by blanching the vegetables in boiling water or steam for a brief period of time. The vegetables must then be rapidly cooled in ice water.

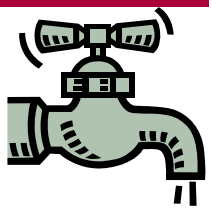
Blanching time varies with the type of vegetable and its size. Over-blanching causes loss of flavor, color, vitamins and minerals. Under-blanching stimulates the activity of the enzymes and is worse than no blanching. Follow recommended blanching times for specific vegetables (see Blanching Vegetables). Begin counting time as soon as you place the vegetables in water.

For quality frozen vegetables:

- Choose fresh, young, tender vegetables. Blanch and freeze soon after harvest.
- Select vegetables of best quality. Freezing does not improve quality.
- Select varieties suitable for freezing.
- Blanch in small quantities—enough for only a few containers at a time, to prevent loss of quality and nutrients.
- Use good quality freezer containers or bags.

Most vegetables will maintain high quality for 12 to 18 months at 0° F or lower.

Which Water?



We visit with home food preservers who will drive miles to get the "right" water for making pickles, or others who insist city water isn't worth two hoots for canning. We tell people: use the water that works for you!

Water is an important ingredient in successful food preservation. Hard water contains larger amounts of minerals than soft water. A certain amount of calcium and magnesium salts are desirable to set the pectins in fruits and vegetables such as in canning peaches and pears. However, large amounts of minerals can toughen peas, beans and shrivel pickles. Hard water can cause cloudy liquid in canned fruits and vegetables as the high temperatures cause the minerals to settle out of the liquid, it is not harmful.

A good example of the water dilemma is green beans. When canning, very soft water can cause mushy green beans, hard water is preferred. But, when blanching green beans for freezing, hard water will toughen them—softer water is then preferred. As a general guideline, avoid excessively soft or hard water in canning, freezing and pickling. Distilled bottled water is preferred to chemically softened water. Hard water can be made more acceptable by boiling it for 15 minutes and allowing the calcium and magnesium salts to settle out. In most cases soft water is preferred over hard water because it causes fewer problems.

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Home Food Processing Methods

If you are planning to can green beans, peas, carrots or other low-acid vegetables, know that to be safely preserved they require processing in a pressure canner.

Whether fruits or vegetables are processed in a pressure canner or a boiling water bath to control botulism bacteria depends on the acidity in the food. Low-acid canned vegetables and meats contain too little acidity to prevent the growth of these bacteria and must be pressure canned. Acid foods, such as fruits, pickles, sauerkraut, jams and jellies contain enough acidity to block their growth and can safely be processed in a water bath canner.

Clostridium botulinum are the main reason why low-acid foods must be pressure canned to be safe. It is a common soil microorganism which produces a very deadly toxin or poison. This food poisoning is called botulism.

The spores of *Clostridium botulinum* can be destroyed by canning the food at a temperature of 240° F or above for a specific period of time. Since this temperature is above the boiling point of water, it can only be reached in a pressure canner. View Safe Home Canning for canning directions and recommended processing times.

Freezing, pickling, or drying are safe and tasty alternative methods of preserving vegetables if you do not have or do not choose to can vegetables with a pressure canner.

Test Your Dial Gauge

A pressure canner has either a dial gauge or a weighted gauge. Dial gauges show the pressure inside the canner. You read the dial and adjust the heat to control the pressure.

Dial gauges should be tested every year to make sure they are reading the pressure correctly. Weighted gauges do not require testing.

Check with your county University of Minnesota Extension office to see if testing is done locally. If not, send the dial gauge to:

National Presto Industries
3925 N Hastings Way
Eau Clair, WI 54703
(Phone: 1-800-877-0441)

Presto only charges for shipping but does not charge for checking the gauge. Wrap the gauge securely, suitable for shipping.

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Pressure Canner Care

- Don't submerge the lid of a dial gauge pressure canner in water. If water gets inside the gauge opening, it can cause an inaccurate reading the next time the gauge is used. If water gets into the dial gauge, hold the lid upright and blot out as much moisture as possible with a paper towel, shaking the lid to force moisture down the tube.
- Remove the sealing ring (rubber gasket) from the canner lid after each use and wash it with warm, sudsy water, rinse and dry. Clean the sealing ring groove in the canner lid regularly.
- Over time, the sealing ring, overpressure plug and air vent gasket may shrink, become hard or unusually soft or deformed. Cooking oil, fat from food and exposure to high heat will cause these parts to deteriorate quickly. Check that these parts are clean, pliable and not cracked. General rule-of-thumb: replace these parts every three years with normal use.

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Cleaning A Stained Canner

A dark discoloration on the inside of aluminum canners is harmless. It is usually caused by iron and various minerals in water and foods.

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Remove the stains by filling it above the darkened line with a mixture of 1 tablespoon cream of tartar to each quart of water. Stubborn stains may require more cream of tartar. Place the canner on the stove, heat water to a boil, and boil covered until the dark deposits disappear. If you are cleaning a pressure canner, open the vent while boiling. Empty the canner, wash it with hot soapy water, rinse and dry.

Tip: A strong vinegar solution is also effective. Deposits from hard water may be reduced if you add 1 tablespoon of white vinegar to the water in the canner while you process your jars.

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Smooth Cooktop Canning?

The National Center for Home Food Preservation encourages home canner to consider the following issues:

- Some manufacturers tell customers not to can on smooth cooktops. Others provide recommendations on the diameter of the canner to the burner diameter. Some new canners have a portion of the canner touching the cooktop and it is the same diameter as the burner.
- High heat over a long time can damage a smooth cooktop because heat is reflected back down on the burner. Damage can vary from discoloration, burner damage, cooktop cracking or fusion of metal to the glass top. Canning many batches in one day may also damage the heating element or cooktop.
- If a heavy canner is slid or pulled across the surface, the cooktop may be scratched, that may lead to cracking over time.
- Many cooktops have automatic shut-offs when heat gets excessive. If the burner shuts off during processing, the product will be under processed and could cause a foodborne illness. Also, if pressure drops suddenly, liquid and food can siphon out of the jar.
- Many water bath canners do not have flat bottoms and it can be difficult to maintain a full boil during processing. It may be possible to use a flat-bottomed stockpot with a bottom rack to hold jars if there is a least 1-inch of water over the tops of the jars.

The best way to tell whether your canner will work is to fill it with water and try to bring it to a rolling boil. Also, contact the manufacturer of your smooth cooktop before making your decision.